Patent Claims

1. Control element for electronic appliances for the actuation of sensors for selecting and invoking functions stored in an electronic memory and for the display of the selected functions by means of a cursor on an electronic appliance, wherein the control element (11) is shaped disc-like and is tiltable around an axis (14) perpendicular to the surface (20) of the control element (11) and is equipped with sensors (18) reacting to pulling and/or compressive stress at its underside (16), the control element (11) being equipped at its underside (16) with spring elements (17) reacting to compressive stress arranged like a ring coaxially with a defined distance around the axis (14).

2. Control element according to claim 1, wherein the control element (11) is tiltable around the axis (14) and arranged axially manouevrable within the appliance casing (15).

3. Control element according to claim 1, wherein the control element (11) exhibits an outline similar to the area of a circle.

4. Control element according to claims 1 to 3, wherein the control element (11) is equipped with and attached to a rotatable actuation disc (22).

5. Control element according to claims 1 and 4, wherein the actuation disc (22) is rotatable around an axis (14) of the control element (11) and is pivoted and supported over transmission elements (26) on the surface (20) of the control element (11).

6. Control element according to claims 1 to 3, wherein the control element (11) exhibits a smooth surface (20).

7. Control element according to claims 1 and 5, wherein the actuation disc (22) exhibits a structured surface (20).

8. Control element according to claims 1 and 5 to 7, wherein the actuation disc (22) exhibits a geometric form tuned to the control element (11).

9. Control element according to claims 1 and 5 to 8, wherein the actuation disc (22) is shaped like a cap that is mounted easily rotatable on the control element (11).

10. Control element according to claims 1 to 3, wherein the control element (11) exhibits tick marks (12) consisting of twelve marks in regular intervals.

11. Control element according to claims 1 to 5, wherein the appliance casing (15) exhibits tick marks (23) next to the edge of the control element (12) consisting of twelve marks in regular intervals where the actuation disc (22) is arranged on the control element (11).

12. Method to actuate a sensor by means of a disc-shaped, fixed control element that is tiltable around an axis (14) perpendicular to the surface, wherein a light pressure with a finger onto the edge of the disc-like control element (11) moves it against a soft spring force (less than 40 grams) a bit downside, so that the perpendicular of the disc-shaped control element (11) is slightly moved into the direction of the actuation, this tilt being evaluated by means of force or tilt sensors in order to determine the position of the actuation of the control element (11), where a circular movement of the finger around the axis (14) on the surface (20) of the control element (11) leads to different directions of the tilt, which are recognized as a rotation and led to a micro processor that brings on a cursor movement according to the direction of the finger movement on the surface of the control element.

13. Method according to claim 12, wherein a stronger pressure during the actuation along the edge of the control element (11) leads to a faster cursor movement and a weaker pressure along the edge of the control element (11) leads to a slower cursor movement.

14. Method according to claims 12 and 13, wherein a menu is selected by actuating the edge of the upper side of the control element (11), the position of the actuation on the control element (11) leading to a highlighting of a menu item at the corresponding position on a display (84, 92).

15. Method according to claims 12 to 14, wherein a character repertoire is displayed upon actuation of the outer edge of the upper side of the control element (11), the position of the actuation on the surface (20) of the control element (11) leading to a highlighting of a character at the corresponding position on a display (84) and the most recently highlighted character is input when the control element (11) is released.

16. Method according to claims 13 to 15, wherein a sliding movement of the finger on the surface (20) of the con-trol element (11) is detected solely from the direction of the tilt of an axis (14) by means of force sensors or angle sensors.

17. Method according to claims 13 to 16, wherein the highlighting of a character can be selected by changing positions during the actuated state of the control element (11).

18. Method according to claims 13 to 17, wherein the character repertoire consists of the letters „A“ to „M“ at the upper edge of the screen and the letters „N“ to „Z“ at the lower edge of the screen.